

U.S. Patent Application Serial No. 09/916,314  
Amendment filed May 20, 2005  
Reply to OA dated February 24, 2005

### **REMARKS**

Claims 2 and 4-20 are pending in this application. An amendment is proposed canceling claims 4-6, 9, 10 and 12 without prejudice or disclaimer, and amending Claim 7, in order to more particularly point out, and distinctly claim the subject matter to which the applicant regards as his invention. Upon entry of this amendment, claims 2, 7, 8, 11 and 13-20 will be pending, with claims 11 and 13-19 withdrawn from consideration. Applicant respectfully submits that no new matter is added by this amendment. It is believed that this Amendment is fully responsive to the Office Action dated **February 24, 2005**.

**Claims 7 and 8 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Kita et al. (US 6,656,608). (Office action paragraphs no. 2 and 3)**

The Examiner states in the Office action that Applicant has described the anode buffer layer as a metal layer with an oxidized surface. However, the Examiner responds that this recitation does not limit the claim to a **two**-layered buffer layer with a portion comprising solely metal and a portion that is an oxide.

Reconsideration of the rejection is respectfully requested in view of the proposed amendment to claim 7. The proposed amendment clarifies the structure of the recited buffer layer, adding the recitation: “said buffer layer comprises said oxidized surface and an unoxidized layer under said oxidized surface”. Support for the amendment to claim 7 may be found in the description on page 25, lines 21-26, in the specification of the present application.

As recited in amended claim 7, in the organic EL element of the present invention, the buffer layer is formed between the anode and the organic EL layer. The buffer layer is formed of at least one type metal selected from a group consisting of ruthenium, molybdenum or vanadium on the anode and a surface of which is oxidized, and thus the buffer layer comprises the oxidized surface and an unoxidized layer **under** the oxidized surface. In other words, the unoxidized layer of the buffer layer is formed of a metal (e.g., vanadium) and the oxidized surface of the buffer layer is formed of an oxide of said metal (e.g., vanadium oxide).

Therefore, the buffer layer of the present invention is a **two-layered structure** that comprises an oxidized layer (the oxidized surface) and an unoxidized layer under the oxidized layer.

On the other hand, in the organic EL element of Kita, as described in column 53, line 64, to column 54, line 6, the anode buffer layer is formed between the anode and the organic EL layer. And, as described in column 54, lines 7-12, the anode buffer layer comprises vanadium oxide. In short, the anode buffer layer is a **one-layered structure** that comprises an oxidized layer.

There is no teaching or disclosure in Kita that the buffer layer is a two-layered structure that comprises an oxidized layer and an unoxidized layer under the oxidized layer.

As recited in amended claim 7, in the present invention, since the oxide surface is formed of ruthenium oxide, molybdenum oxide or vanadium oxide, which is effective to lower the operating threshold voltage is formed between the anode and the organic EL layer, the operating threshold voltage of the organic EL element is low. Moreover, since the surface of the buffer layer is oxidized, the unevenness of the side surface of the buffer layer that contacts to the organic EL layer is small.

U.S. Patent Application Serial No. 09/916,314  
Amendment filed May 20, 2005  
Reply to OA dated February 24, 2005

Thus, the occurrence of a short-circuit between the anode and the cathode can be avoided even if the organic EL layer is thinned.

Applicant therefore submits that claims 7 and 8, as amended, are not anticipated by and non-obvious over Kita et al.

In view of the aforementioned amendments and accompanying remarks, the claims, as amended, are in condition for allowance, which action, at an early date, is requested.

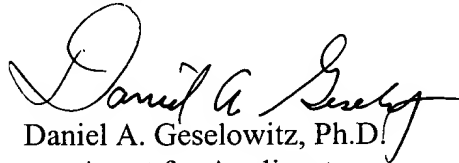
If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

U.S. Patent Application Serial No. 09/916,314  
Amendment filed May 20, 2005  
Reply to OA dated February 24, 2005

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS,  
HANSON & BROOKS, LLP



Daniel A. Geselowitz, Ph.D.

Agent for Applicant

Reg. No. 42,573

DAG/lrj  
Atty. Docket No. 010935  
Suite 1000  
1725 K Street, N.W.  
Washington, D.C. 20006  
(202) 659-2930



23850

PATENT TRADEMARK OFFICE